

## VPAT™

### Voluntary Product Accessibility Template®

#### Version 1.3

**Date:** May 23, 2012

**Name of Products:** Model MX-M232D

**Contact for more Information:** VPAT Support Team ([VPAT\\_Support\\_Team@sharpusa.com](mailto:VPAT_Support_Team@sharpusa.com))



Sharp MX-M232D  
Compliant with minor exceptions

The purpose of the **Voluntary Product Accessibility Template**, or **VPAT™**, is to assist Federal contracting officials and other buyers in making preliminary assessments regarding the availability of commercial “Electronic and Information Technology” products and services with features that support accessibility. It is assumed and recommended that offerers will provide additional contact information to facilitate more detailed inquiries.

The first table of the Template provides a summary view of the Section 508 Standards. The subsequent tables provide more detailed views of each subsection. There are three columns in each table. Column one of the Summary Table describes the subsections of subparts B and C of the Standards. The second column describes the supporting features of the product or refers you to the corresponding detailed table, e.g., “equivalent facilitation.” The third column contains any additional remarks and explanations regarding the product. In the subsequent tables, the first column contains the lettered paragraphs of the subsections. The second column describes the supporting features of the product with regard to that paragraph. The third column contains any additional remarks and explanations regarding the product.

<b>Summary Table</b> <b>VPAT™</b> <b>Voluntary Product Accessibility Template®</b>		
<b>Criteria</b>	<b>Supporting Features</b>	<b>Remarks and explanations</b>
Section 1194.21	Supports	<a href="#">Software Applications and Operating Systems</a>
Section 1194.22	Supports	<a href="#">Web-based Internet Information and Applications</a>
Section 1194.23	Not applicable	<a href="#">Telecommunications Products</a>
Section 1194.24	Not applicable	<a href="#">Video and Multi-media Products</a>
Section 1194.25	Supports with Limitations	<a href="#">Self-Contained, Closed Products</a>
Section 1194.26	Not applicable	<a href="#">Desktop and Portable Computers</a>
Section 1194.31	Supports with Limitations	<a href="#">Functional Performance Criteria</a>
Section 1194.41	Supports with Limitations	<a href="#">Information, Documentation and Support</a>

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**Section 1194.21 Software Applications and Operating Systems – Detail**

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<b>Criteria</b>	<b>Supporting Features</b>	<b>Remarks and explanations</b>
(a) When software is designed to run on a system that has a keyboard, product functions shall be executable from a keyboard where the function itself or the result of performing a function can be discerned textually.	Supports	Regarding Sharp imaging (one of the functions of Sharpdesk® document management software), some mouse commands do not have a corresponding keyboard command. (ex. range specification of image data).  All buttons and links can be focused by using keyboard in the printer driver.
(b) Applications shall not disrupt or disable activated features of other products that are identified as accessibility features, where those features are developed and documented according to industry standards. Applications also shall not disrupt or disable activated features of any operating system that are identified as accessibility features where the application programming interface for those accessibility features has been documented by the manufacturer of the operating system and is available to the product developer.	Supports	Sharpdesk software runs on Microsoft™ OS and utilities.  The printer driver is not designed to disrupt or disable other functions by design.
(c) A well-defined on-screen indication of the current focus shall be provided that moves among interactive interface elements as the input focus changes. The focus shall be programmatically exposed so that Assistive Technology can track focus and focus changes.	Supports	If the focus changes, the target will change in some ways. Ex. the frame color will change if a thumbnail is focused. The text will be bold if focused.  Regarding the printer driver, if the focus changes, the target will change in some ways. Ex. the color will change if an icon button is focused.
(d) Sufficient information about a user interface element including the identity, operation and state of the element shall be available to Assistive Technology. When an image represents a program element, the information conveyed by the image must also be available in text.	Supports	When Sharpdesk software displays image data, text describing the image is also displayed (ex. thumbnails are labeled with the name of each file in Desktop).  The information conveyed by the image can be available in text in the Printer Driver.  *Note that some browsers don't display the alternative text.

<b>Criteria</b>	<b>Supporting Features</b>	<b>Remarks and explanations</b>
(e) When bitmap images are used to identify controls, status indicators, or other programmatic elements, the meaning assigned to those images shall be consistent throughout an application's performance.	Supports	When an icon, an indicator and an element have the same image, each of them has the same meaning in the printer driver.
(f) Textual information shall be provided through operating system functions for displaying text. The minimum information that shall be made available is text content, text input caret location, and text attributes.	Supports	The printer driver displays text contents using functions of the OS.
(g) Applications shall not override user selected contrast and color selections and other individual display attributes.	Supports	The printer driver doesn't override the said selections and attributes.
(h) When animation is displayed, the information shall be displayable in at least one non-animated presentation mode at the option of the user.	Supports	The printer driver doesn't have animations.
(i) Color coding shall not be used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.	Supports	The printer driver doesn't have the information conveying function which uses color coding as the only means.
(j) When a product permits a user to adjust color and contrast settings, a variety of color selections capable of producing a range of contrast levels shall be provided.	Supports	The printer driver doesn't have adjust color and contrast setting Function.
(k) Software shall not use flashing or blinking text, objects, or other elements having a flash or blink frequency greater than 2 Hz and lower than 55 Hz.	Supports	The printer driver is not designed to flash or blink.
(l) When electronic forms are used, the form shall allow people using Assistive Technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.	Supports	Sharpdesk software and the printer driver doesn't use electronic forms.

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**Section 1194.22 Web-based Internet information and applications – Detail**

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<b>Criteria</b>	<b>Supporting Features</b>	<b>Remarks and explanations</b>
(a) A text equivalent for every non-text element shall be provided (e.g., via "alt", "longdesc", or in element content).	Not Applicable	
(b) Equivalent alternatives for any multimedia presentation shall be synchronized with the presentation.	Not Applicable	
(c) Web pages shall be designed so that all information conveyed with color is also available without color, for example from context or markup.	Not Applicable	
(d) Documents shall be organized so they are readable without requiring an associated style sheet.	Not Applicable	
(e) Redundant text links shall be provided for each active region of a server-side image map.	Not Applicable	
(f) Client-side image maps shall be provided instead of server-side image maps except where the regions cannot be defined with an available geometric shape.	Not Applicable	
(g) Row and column headers shall be identified for data tables.	Not Applicable	
(h) Markup shall be used to associate data cells and header cells for data tables that have two or more logical levels of row or column headers.	Not Applicable	
(i) Frames shall be titled with text that facilitates frame identification and navigation	Not Applicable	
(j) Pages shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.	Not Applicable	
(k) A text-only page, with equivalent information or functionality, shall be provided to make a web site comply with the provisions of this part, when compliance cannot be accomplished in any other way. The content of the text-only page shall be updated whenever the primary page changes.	Not Applicable	
(l) When pages utilize scripting languages to display content, or to create interface elements, the information provided by the script shall be identified with functional text that can be read by Assistive Technology.	Not Applicable	
(m) When a web page requires that an applet, plug-in or other application be present on the client system to interpret page content, the page must provide a link to a plug-in or applet that complies with §1194.21(a) through (l).	Not Applicable	
(n) When electronic forms are designed to be completed on-line, the form shall allow people using Assistive Technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.	Not Applicable	
(o) A method shall be provided that permits users to skip	Not Applicable	

repetitive navigation links.		
(p) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.	Not Applicable	

Note to 1194.22: The Board interprets paragraphs (a) through (k) of this section as consistent with the following priority 1 Checkpoints of the Web Content Accessibility Guidelines 1.0 (WCAG 1.0) (May 5 1999) published by the Web Accessibility Initiative of the World Wide Web Consortium: Paragraph (a) - 1.1, (b) - 1.4, (c) - 2.1, (d) - 6.1, (e) - 1.2, (f) - 9.1, (g) - 5.1, (h) - 5.2, (i) - 12.1, (j) - 7.1, (k) - 11.4.

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<p><b>Section 1194.23 Telecommunications Products – Detail</b></p> <p><b>VPAT™</b></p> <p><b>Voluntary Product Accessibility Template®</b></p>		
<b>Criteria</b>	<b>Supporting Features</b>	<b>Remarks and explanations</b>
(a) Telecommunications products or systems which provide a function allowing voice communication and which do not themselves provide a TTY functionality shall provide a standard non-acoustic connection point for TTYs. Microphones shall be capable of being turned on and off to allow the user to intermix speech with TTY use.	Not Applicable	
(b) Telecommunications products which include voice communication functionality shall support all commonly used cross-manufacturer non-proprietary standard TTY signal protocols.	Not Applicable	
(c) Voice mail, auto-attendant, and interactive voice response telecommunications systems shall be usable by TTY users with their TTYs.	Not Applicable	
(d) Voice mail, messaging, auto-attendant, and interactive voice response telecommunications systems that require a response from a user within a time interval, shall give an alert when the time interval is about to run out, and shall provide sufficient time for the user to indicate more time is required.	Not Applicable	
(e) Where provided, caller identification and similar telecommunications functions shall also be available for users of TTYs, and for users who cannot see displays.	Not Applicable	
(f) For transmitted voice signals, telecommunications products shall provide a gain adjustable up to a minimum of 20 dB. For incremental volume control, at least one intermediate step of 12 dB of gain shall be provided.	Not Applicable	
(g) If the telecommunications product allows a user to adjust the receive volume, a function shall be provided to automatically reset the volume to the default level after every use.	Not Applicable	

<b>Criteria</b>	<b>Supporting Features</b>	<b>Remarks and explanations</b>
(h) Where a telecommunications product delivers output by an audio transducer which is normally held up to the ear, a means for effective magnetic wireless coupling to hearing technologies shall be provided.	Not Applicable	
(i) Interference to hearing technologies (including hearing aids, cochlear implants, and assistive listening devices) shall be reduced to the lowest possible level that allows a user of hearing technologies to utilize the telecommunications product.	Not Applicable	
(j) Products that transmit or conduct information or communication, shall pass through cross-manufacturer, non-proprietary, industry-standard codes, translation protocols, formats or other information necessary to provide the information or communication in a usable format. Technologies which use encoding, signal compression, format transformation, or similar techniques shall not remove information needed for access or shall restore it upon delivery.	Not Applicable	
(k)(1) Products which have mechanically operated controls or keys shall comply with the following: Controls and Keys shall be tactilely discernible without activating the controls or keys.	Not Applicable	
(k)(2) Products which have mechanically operated controls or keys shall comply with the following: Controls and Keys shall be operable with one hand and shall not require tight grasping, pinching, twisting of the wrist. The force required to activate controls and keys shall be 5 lbs. (22.2N) maximum.	Not Applicable	
(k)(3) Products which have mechanically operated controls or keys shall comply with the following: If key repeat is supported, the delay before repeat shall be adjustable to at least 2 seconds. Key repeat rate shall be adjustable to 2 seconds per character.	Not Applicable	
(k)(4) Products which have mechanically operated controls or keys shall comply with the following: The status of all locking or toggle controls or keys shall be visually discernible, and discernible either through touch or sound.	Not Applicable	

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**Section 1194.24 Video and Multi-media Products – Detail**

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<b>Criteria</b>	<b>Supporting Features</b>	<b>Remarks and explanations</b>
a) All analog television displays 13 inches and larger, and computer equipment that includes analog television receiver or display circuitry, shall be equipped with caption decoder circuitry which appropriately receives, decodes, and displays closed captions from broadcast, cable, videotape, and DVD signals. As soon as practicable, but not later than July 1, 2002, widescreen digital television (DTV) displays measuring at least 7.8 inches vertically, DTV sets with conventional displays measuring at least 13 inches vertically, and stand-alone DTV tuners, whether or not they are marketed with display screens, and computer equipment that includes DTV receiver or display circuitry, shall be equipped with caption decoder circuitry which appropriately receives, decodes, and displays closed captions from broadcast, cable, videotape, and DVD signals.	Not Applicable	
(b) Television tuners, including tuner cards for use in computers, shall be equipped with secondary audio program playback circuitry.	Not Applicable	
(c) All training and informational video and multimedia productions which support the agency's mission, regardless of format, that contain speech or other audio information necessary for the comprehension of the content, shall be open or closed captioned.	Not Applicable	
(d) All training and informational video and multimedia productions which support the agency's mission, regardless of format, that contain visual information necessary for the comprehension of the content, shall be audio described.	Not Applicable	
(e) Display or presentation of alternate text presentation or audio descriptions shall be user-selectable unless permanent.	Not Applicable	

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**Section 1194.25 Self-Contained, Closed Products – Detail**

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<b>Criteria</b>	<b>Supporting Features</b>	<b>Remarks and explanations</b>
(a) Self contained products shall be usable by people with disabilities without requiring an end-user to attach Assistive Technology to the product. Personal headsets for private listening are not Assistive Technology.	Supports	<p>[For Operation Panel]</p> <p>(1) Assembled key layout based on the information flow.</p> <p>(2) Grouped by shape, size, and color, categorized function by function.</p> <p>[For System Operation Function]</p> <p>(3) Assistive Technology for people with disabilities is not required to use the product. (Personal headsets are not Assistive Technology.)</p>
(b) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.	Supports with Limitations	<p>[For System Operation Function]</p> <p>Though there is no function to notice end-users timeout in advance, end-user can adjust it to have enough time before timeout. Also timeout function can be stopped if necessary.</p>
(c) Where a product utilizes touchscreens or contact-sensitive controls, an input method shall be provided that complies with §1194.23 (k) (1) through (4).	Not Applicable	There is no touch panel.
(d) When biometric forms of user identification or control are used, an alternative form of identification or activation, which does not require the user to possess particular biological characteristics, shall also be provided.	Not Applicable	There is no biometric form of user identification.
(e) When products provide auditory output, the audio signal shall be provided at a standard signal level through an industry standard connector that will allow for private listening. The product must provide the ability to interrupt, pause, and restart the audio at anytime.	Not Applicable	There is no auditory output.
(f) When products deliver voice output in a public area, incremental volume control shall be provided with output amplification up to a level of at least 65 dB. Where the ambient noise level of the environment is above 45 dB, a volume gain of at least 20 dB above the ambient level shall be user selectable. A function shall be provided to automatically reset the volume to the default level after every use.	Not Applicable	There is no voice output in a public area.
(g) Color coding shall not be used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.	Not Applicable	There is no color touch panel.



<b>Criteria</b>	<b>Supporting Features</b>	<b>Remarks and explanations</b>
(h) When a product permits a user to adjust color and contrast settings, a range of color selections capable of producing a variety of contrast levels shall be provided.	Not Applicable	There is no color display.
(i) Products shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.	Supports	Conforms
(j) (1) Products which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: The position of any operable control shall be determined with respect to a vertical plane, which is 48 inches in length, centered on the operable control, and at the maximum protrusion of the product within the 48 inch length on products which are freestanding, non-portable, and intended to be used in one location and which have operable controls.	Supports with Limitations	Applicable (desktop configuration).
(j)(2) Products which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: Where any operable control is 10 inches or less behind the reference plane, the height shall be 54 inches maximum and 15 inches minimum above the floor.	Supports	Applicable.  Operable control is 3.9 inches behind the reference plane.
(j)(3) Products which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: Where any operable control is more than 10 inches and not more than 24 inches behind the reference plane, the height shall be 46 inches maximum and 15 inches minimum above the floor.		The height is 10.4 inches above the bottom of machine.
(j)(4) Products which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: Operable controls shall not be more than 24 inches behind the reference plane.		Therefore it is applicable (desktop configuration).

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**Section 1194.26 Desktop and Portable Computers – Detail**

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<b>Criteria</b>	<b>Supporting Features</b>	<b>Remarks and explanations</b>
(a) All mechanically operated controls and keys shall comply with §1194.23 (k) (1) through (4).	Not Applicable	
(b) If a product utilizes touchscreens or touch-operated controls, an input method shall be provided that complies with §1194.23 (k) (1) through (4).	Not Applicable	
(c) When biometric forms of user identification or control are used, an alternative form of identification or activation, which does not require the user to possess particular biological characteristics, shall also be provided.	Not Applicable	
(d) Where provided, at least one of each type of expansion slots, ports and connectors shall comply with publicly available industry standards	Not Applicable	

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**Section 1194.31 Functional Performance Criteria – Detail**

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Criteria	Supporting Features	Remarks and explanations
<p>(a) At least one mode of operation and information retrieval that does not require user vision shall be provided, or support for Assistive Technology used by people who are blind or visually impaired shall be provided.</p>	<p>Limited Support</p>	<p>Current Technology provides no equivalent to touch-screen display panels. However, note the following:</p> <p>[For Operation Panel]</p> <p>(1) Major keys can be recognized not only with vision but also with others.</p> <p>(2) Light touch on keys does not activate input. All keys activate input by force 25g-250g.</p> <p>(3) When input is determined or invalid, operation status is confirmed by a beeping sound.</p> <p>(4) When similar shape of operation parts is aligned in a row, standard operation portion is read by something such as vision and touch.</p> <p>(5) Frequently used keys are aligned to be recognized easily, and different shapes and colors are used so as to be distinguished easier.</p> <p>[For Paper Setting]</p> <p>(6) The tray operation can be recognized by touch, and enables end-users to open and close tray and set paper with one hand.</p> <p>(7) When it closes, the user can grasp it using sense of touch or hearing.</p> <p>[For Draft setting on Platen]</p> <p>(8) Setting documents on the Platen can be done even without relying on visibility because there is a notch located on a center of guide scale.</p>

<b>Criteria</b>	<b>Supporting Features</b>	<b>Remarks and explanations</b>
(b) At least one mode of operation and information retrieval that does not require visual acuity greater than 20/70 shall be provided in audio and enlarged print output working together or independently, or support for Assistive Technology used by people who are visually impaired shall be provided.	Supports	<p>[For Operation Panel]</p> <p>(1) Letter size is min. 3.5mm and usual letter size is be 4mm or larger.</p> <p>(2) The size for Key top letters including 10 key numbers, START, CA are 5.6mm or larger.</p> <p>(3) Difference in color lightness is 4 or more.</p> <p>(4) Following Color combination is avoided: White-Yellow, Black-Blue, Green-Blue, Black-Green, and Red in White.</p> <p>(5) Common to (1)-(14) in the above 31(a).</p>
(c) At least one mode of operation and information retrieval that does not require user hearing shall be provided, or support for Assistive Technology used by people who are deaf or hard of hearing shall be provided	Not Applicable	Operations do not require user hearing.
(d) Where audio information is important for the use of a product, at least one mode of operation and information retrieval shall be provided in an enhanced auditory fashion, or support for assistive hearing devices shall be provided.	Not Applicable	There is no audio information
(e) At least one mode of operation and information retrieval that does not require user speech shall be provided, or support for Assistive Technology used by people with disabilities shall be provided.	Not Applicable	There is no function to require user speech.
(f) At least one mode of operation and information retrieval that does not require fine motor control or simultaneous actions and that is operable with limited reach and strength shall be provided.	Supports	<p>(1) Allows end-users to close it with one hand easily from the maximum open/close angle under consideration of desk.</p> <p>(2) Door etc. can be opened/closed with one hand.</p> <p>(3) When end-user presses unauthorized key, a beeping sound should go off to prevent unintentional operation.</p> <p>(4) All operations do not require the force over 22.2N.</p> <p>(5) All operations can be done with one hand and do not require tight grasping, or twisting of the wrist.</p>

**Section 1194.41 Information, Documentation and Support – Detail**

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<b>Criteria</b>	<b>Supporting Features</b>	<b>Remarks and explanations</b>
(a) Product support documentation provided to end-users shall be made available in alternate formats upon request, at no additional charge	Supports	Paper and PDF
(b) End-users shall have access to a description of the accessibility and compatibility features of products in alternate formats or alternate methods upon request, at no additional charge.	Supports	Paper and PDF
(c) Support services for products shall accommodate the communication needs of end-users with disabilities.	Supports	Paper and PDF Compatible telephone support Online (HTML, PDF), Supports Screen Readers Additionally, My Sharp which provides text, sound, and images

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